Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Deborah O. Raphael, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Edmund G. Brown Jr.
Governor

May 17, 2013

Mr. Dave Dassler
The Boeing Company
5800 Woolsey Canyon Road, MC T-487
Canoga Park, California 91304-1148

DEPARTMENT OF TOXIC SUBSTANCES CONTROL APPROVAL TO IMPLEMENT THE IN-SITU CHEMICAL OXIDATION FIELD EXPERIMENT WORK PLAN, SANTA SUSANA FIELD LABORATORY, VENTURA COUNTY, CALIFORNIA

Dear Mr. Dassler:

The Department of Toxic Substances Control (DTSC) has determined that the In-Situ Chemical Oxidation (ISCO) Field Experiment Work Plan is technically complete and approved for implementation. DTSC requests that Boeing submit an updated schedule for the ISCO Field Experiment Work Plan implementation activities to DTSC within thirty (30) days.

The purpose of the ISCO Field Experiment is to collect field data that will aid in evaluating the effectiveness, implementability and cost of using ISCO as a technology for removing volatile organic compounds (VOCs) from the saturated bedrock of the Chatsworth Formation at SSFL. The intent of the proposed ISCO Field Experiment is to introduce an oxidant (potassium permanganate [$KMnO_4$]) into the Chatsworth formation to initiate an oxidation reaction with the VOCs, thereby converting the VOCs to carbon dioxide, water, and chloride ions. Results from the proposed ISCO Field Experiment will be used in the SSFL Corrective Measures Study.

DTSC reviewed the *Treatability Study Work Plan, (MWH, June 2009)* and the *Work Plan Addendum # 1 for the ISCO Field Experiment (MWH, January 2012).* In March 2013, DTSC issued a public notice and fact sheet, and conducted a 30-day public comment period for the proposed ISCO Field Experiment work plan and addendum.

DTSC reviewed and considered the public comments in the work plan approval process. Responses to the public comments were developed and are posted at DTSC's SSFL website at: http://dtsc-cm/SiteCleanup/Santa_Susana_Field_Lab/ssfl_whats_new.cfm

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As part of the approval process, an Initial Study was prepared and a draft Mitigated Negative Declaration was filed with the Office of Planning and Research to comply with the California Environmental Quality Act requirements for this action. A copy of the draft Mitigated Negative Declaration has been included for your information.

If you have any questions regarding the approval of the ISCO Field Experiment Work Plan, please contact Mr. Roger Paulson Roger.Paulson@dtsc.ca.gov at (916)255-3702 or me Mark.Malinowski@dtsc.ca.gov at (916) 255-3717.

Sincerely,

Mark Malinowski
SSFL Program Manager
Department of Toxic Substances Control

Attachments:
Draft Mitigated Negative Declaration

cc: (see next page)

cc: (via e-mail)

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NOTICE OF AVAILABILITY OF ENVIRONMENTAL DOCUMENT

To: Ventura County Clerk
Hall of Administration, Main Plaza
800 S. Victoria Avenue
Ventura, CA 93009-1210

From: Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
8800 Cal Center Drive
Sacramento, CA 95826

This is to provide notification that the Department of Toxic Substances Control (DTSC) is undertaking the preparation of a ☐ draft Negative Declaration ☒ draft Mitigated Negative Declaration ☐ draft Environmental Impact Report for the project identified below. This notice is provided as required by California Public Resources Code (PRC) section 21092 and section 21092.3. As specified in PRC section 21092.3, notices for an Environmental Impact Report (EIR) must be posted in the office of the county clerk of each county in which the project will be located. Such notices for an EIR are required to remain posted for a period of 30 days. Notices for a Negative Declaration are required to be posted for a period of 20 days, unless otherwise required by law to be posted for 30 days. The county clerk is required to post these notices within 24 hours of receipt.

Project Title: Santa Susana Field Laboratory, In Situ Chemical Oxidation Field Experiment

Location of Project: Santa Susana Field Laboratory, Ventura County

Project Description:

The ISCO is planned for implementation on property owned by Boeing in the northeast section of Area I, the Instrument and Equipment Laboratory (IEL) Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Site.

The majority of the site activities will be done in an area less than 1/10 of an acre. There is also one observation well approximately 200 feet away and the work around the well is approximately 10 – 20 feet (See Figures 2 & 3).

The proposed ISCO Field Experiment is designed to collect field data that will aid in evaluating the effectiveness, implementability and cost of using ISCO as a technology for removing volatile organic compounds (VOCs) from the saturated bedrock of the Chatsworth Formation that underlies the SSFL. The intent of the proposed ISCO Field Experiment is to introduce oxidant (potassium permanganate [$KMnO_4$]) in the Chatsworth formation to initiate an oxidation reaction with the VOCs, thereby converting the VOCs to carbon dioxide, water, and chloride ions.

The proposed ISCO Field Experiment activities are detailed in the *In Situ Chemical Oxidation Field Experiment Work Plan Addendum #1* dated January 2012. In summary, the proposed ISCO Field Experiment includes the following activities:

- Installation of a new injection well by deepening/conversion of monitor well RD-35A.*
- Performance of laboratory bench test treatability studies on rock core sections retrieved from the injection well deepening/conversion.
- Drilling three coreholes, installation of two new monitor wells, and installation of three Flexible Liner Underground Technology (FLUTe™) multilevel sampling systems.*
- Rock samples will be collected and analyzed from cores retrieved during injection well deepening, drilling coreholes, and installation of two new monitor wells.
- Installation and operation of an oxidant injection system.
- Performance monitoring, including recording of groundwater quality parameters and collection of groundwater samples.

* As part of the site characterization phase, the deepening/conversion of monitor well RD-35A and the installation of two new monitor wells and one corehole was completed in November 2012. The approval of these site characterization activities was determined to be exempt (Class 15330(b)(9)) from the California Environmental Quality Act (CEQA) by DTSC.

Any Significant Effects on the Environment: *(An Initial Study supporting this finding is attached.)*

After conducting an Initial Study of the potential environmental impacts of the proposed project, DTSC has determined that implementation of the project could potentially result in impacts to cultural resources during corehole drilling.

Period During Which Comments on the Document Will Be Received:

Start Date: 03/18/2013
End Date: 04/18/2013

Location Where Documents Can Be Reviewed:

Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
8800 Cal Center Drive
Sacramento, CA 95826

Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
9211 Oakdale Ave
Chatsworth, CA 91311-6505
Contact: Ms. Marina Perez
(818) 717-6569

Simi Valley Library
2969 Tapo Canyon Road
Simi Valley, CA 93063
(805) 526-1735

Platt Branch Library
23600 Victory Blvd.
Woodland Hills, CA 91367
(818) 340-9386

California State University,
Oviatt Library, 2nd Floor, Room 265
Northridge, California 91330
(818) 677-2285

Branch Chief Signature	Date
3/14/13	

Mark Malinowski	Sup. Engineering Geologist	(916) 255-3717
Branch Chief Name	Branch Chief Title	Phone #